

AMENDMENTS TO THE CLAIMS

Please amend the claims follows:

1. (Previously Presented) An echo canceller, for an asymmetric communication system configured to download an input signal at a first data rate and to upload an output signal at a second data rate different from the first data rate, comprising:
 - a delay line block for delaying the input signal for a predetermined interval to generate a delay signal;
 - a filter coefficient table block for sequentially shifting filter coefficients stored in a shift register, and for sequentially outputting a filter coefficient; and
 - a multiplication and accumulation block for multiplying and adding the delay signal of the delay line block by the filter coefficient output by the filter coefficient table block to generate an echo-cancelled output signal.
2. (Previously Presented) The echo canceller of claim 1, wherein the echo canceller is a finite impulse response (FIR) filter that calculates the correlativity between the input signal and an echo output signal to generate the filter coefficients.
3. (Previously Presented) The echo canceller of claim 1, wherein the shift register is used while the echo canceller operates in the central office (CO) mode and while the echo canceller operates in the remote terminal (RT) mode.
4. (Previously Presented) The echo canceller of claim 1, wherein the filter coefficient output by the filter coefficient table block has a shift rate equal to the ratio of the first data rate and the second data rate.
5. (Previously Presented) The echo canceller of claim 1, wherein while operating in the central terminal (CO) mode the delay line block divides a line for inputting the input signal into eight delay lines to delay the input signal.

6. through 24. (CANCELLED)

25. (Currently Amended) An echo canceller for an asymmetric communication system configured to download data and to upload data at different data rates. [The echo canceller of claim 24 further] comprising:

a delay line block, for delaying a digital input signal received at a first data rate for a predetermined interval to generate a delay signal, having a plurality m of delay lines, wherein m is an integer number and fewer than m among the m delay lines are used for delaying the input signal while the echo canceller operates in a remote terminal (RT) mode.

a filter coefficient table block for sequentially shifting filter coefficients stored in a shift register, and for sequentially outputting a filter coefficient; and

a multiplication and accumulation block for multiplying and adding the delay signal of the delay line block by the filter coefficient output by the filter coefficient table block to generate an echo-cancelling signal to an adder for outputting the an echo-cancelled [echo]digital output signal at a second data rate different from the first data rate.

26. (Previously Presented) The echo canceller of claim 1, wherein the delay line block includes a plurality m of delay lines used in central office (CO) mode for delaying the input signal for a predetermined interval to generate the delay signal, wherein fewer than m among the m delay lines are used for delaying the input signal while the echo canceller operates in a remote terminal (RT) mode, wherein while the echo canceller operates in the central office (CO) mode the second data rate is greater than the first data rate.

27. (Previously Presented) The echo canceller of claim 1, wherein while operating in the central terminal (CO) mode the delay line block divides a line for inputting the input signal into eight delay lines to delay the input signal.

28. (Previously Presented) The echo canceller of claim 4, wherein the ratio of the first data rate and the second data rate equals 1:4.